

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

In the claims

Claim 1 has been amended to incorporate the features previously set forth in claim 9, and claim 9 is cancelled. In particular, claim 1 now includes, in the statistical face shape model computing step, the features of the mean shape vector \bar{x} , the covariance matrix C , the eigenvectors v_k^s , and the eigenvalues λ_k^s described previously in claim 9.

In incorporating these features into claim 1, they have been reworded as necessary for improved clarity. However, it is respectfully submitted that these features as added into claim 1 correspond substantively to claim 9, and therefore claim 1 corresponds to claim 9 rewritten in independent form including all of the elements of the base claim.

Applicant notes that the examiner has indicated that claim 9 would be allowable if rewritten in independent form including all of the elements of the base claim and any intervening claims. Accordingly, it is respectfully submitted that this amendment to claim 1 does not present any new issue requiring further search and examination, but places the present application clearly into condition for allowance.

Therefore, entry of this amendment, and reconsideration of the application in view of Examiner's indication of allowable subject matter, is respectfully requested.

Rejection of claims 1-8, 10, and 11 under 35 U.S.C. § 103(a); Allowable subject matter

Claims 1-8, 10, and 11 presently stand rejected as being unpatentable over Lanitis et al. (article titled "Automatic face identification system using flexible appearance models) in view of Cootes (article titled "Active Shape Models – Their Training and Application). However, the examiner has indicated that claims 9 and 12-

16 would be allowable if rewritten in independent form including all of the elements of the base claim and any intervening claims.

Applicant appreciates the examiner's indication of allowable subject matter. In this regard, claim 1 has been amended, as discussed above, to incorporate the features set forth in claim 9, and claim 9 has been cancelled accordingly.

It is respectfully submitted that claim 1 is allowable, at least in view of the incorporation of the allowable subject matter of claim 9 identified by the examiner.

More particularly, is respectfully submitted that both Lanitis and Cootes fail to disclose or suggest the feature of computing a plurality of principal components according to eigenvectors v_k^s , which are derived from $Cv_k^s = \lambda_k^s v_k^s$ with eigenvalues λ_k^s corresponding to the covariance matrix C formed as $C = AA^T$ for $1 \leq k \leq m$ where m is the dimension of the covariance matrix C for $\lambda_1^s \geq \lambda_2^s \geq \dots \geq \lambda_m^s$, to thereby form the statistical face shape model (amended claim 1).

Therefore, the amended claim 1 in the invention that uses principle component technique to form the statistical face shape model is not disclosed or suggested by the cited references and thus is allowable. The other claims are directly or indirectly dependent on claim 1, and thus are distinguished from the prior art by the same reason.

For at least these reasons, it is respectfully submitted that all of claims 1-8 and 10-16 are allowable, and the withdrawal of this rejection is respectfully requested.

Conclusion

Every effort has been made to place the application fully in condition for allowance, and to remove all issues raised by the Examiner in the Official Action.

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-8 and 10-16 be allowed and the application be passed to issue.

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Examiner: Shang-Hong LAI
Art Unit: 2624

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "John R. Schaeffer", is written over the printed name.

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